

REMARKS

Claims 1 and 3-9 are pending. Claim 1, the only independent claim, has been amended.

Claim 1 was rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent 6,495,916 (Ohuchi et al.). Claims 3-9 were rejected under 35 U.S.C. § 103 as obvious from Ohuchi et al. in view of admitted prior art.

Claim 1, as amended, recites, *inter alia*, that the marking member includes at least one linear portion, and the external electrodes each have a circular shape when viewed in a vertical direction when the semiconductor chip is held horizontally. The outline shape of the marking member includes at least one linear portion as viewed from the vertical direction.

The claimed invention includes at least one marking member including at least one linear portion formed together with plural circular shapes. As a result it is possible to easily recognize the inclination.

As is discussed in the background, and with reference to Figure 6, prior art methods of orientation must recognize inclination, for example rotational inclination, by first recognizing lines formed by a series of solder balls oriented in a matrix the x and y direction. In this prior art method, lines formed by a large number of solder balls must be recognized by image processing software. However, as is discussed in the background section of the specification, it is difficult to recognize lines based on a large number of objects distributed over a wide area.

The present invention allows any inclination of the chip to be recognized by use of a marking member, for example marking member 130, that itself has a linear portion. Recognition of this linear portion, and any inclination of that portion compared to a

reference, is easier than recognition of a line formed by multiple solder balls oriented across a large portion of the chip, as in the method shown in Figure 6.

Ohuchi et al. provides *cross-sectional views* showing, inter alia, solder balls 7 and posts 4. The Office Action took the position that the posts 4, with their square sides, correspond to the recited marking portion.

In the first place, as originally recited, “viewed in the thickness direction” was intended to mean viewed in a vertical direction, i.e., a direction at least roughly perpendicular to the horizontal orientation of the chip. This is quite clear from the legend in Figure 7. However, to expedite prosecution, claim 1 has been amended to recite that the outline shape of the marking member includes at least one linear portion as viewed from the vertical direction.

On the other hand, Ohuchi et al., including the figure reproduced at page 3 of the Office Action, shows a cross-sectional view. While the linear portions of post 4 are “visible” in the cross-section view (a side view), there is no indication that the linear portions of post 4 are visible at all in the vertical direction, since they are covered by the round solder balls 7 when viewed in that direction, i.e., from above.

In view of the above, amended independent claim 1 is believed to clearly distinguish over the cited prior art.

The other claims in this application are each dependent from amended independent claim 1 discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

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Respectfully submitted,

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